



DX NEWS

The magazine of the
National Radio Club

—SINCE 1933—

Volume 58, No. 2-October 15, 1990 (ISSN 0737-1659)

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23 .. Wayne and Jeff
kicked me here

CPC Calendar ...

Date	Station	From/To (EST)
Nov. 4	WITZ-990	5:30/6:00 AM
Nov. 4	KVOX-1280	6:00/6:30 AM
Nov. 4	KLEY-1130	6:30/7:00 AM
Nov. 11	WSYB-1380	5:30/6:00 AM
Nov. 12	WARU-1600	2:00/2:30 AM
Nov. 12	KRXY-1600	2:30/3:00 AM
Nov. 12	KORN-1490	5:00/5:30 AM
Dec. 1	KLER-1300	6:50 AM
Dec. 3	KOJM-610	2:10/2:30 AM
Dec. 10	KUMA-1290	3:05/3:30 AM
Dec. 16	KTIL-1590	3:00/3:30 AM

WITZ-940, P.O. Box 167, Jasper, IN 47546 will present a Special DX TEST on Sunday, November 4, 1990 from 0530 to 0600 EST. The test will consist of tones, music, voice and Morse code ID's. Our thanks to Mr. Gary Lee for conducting this test arranged by the Colorado CPC Machine for the National Radio Club.

KVOX-1280, P.O. BOX 97, Moorhead, MN 56561 will present a unique DX TEST on November 4, 1990 from 0600 to 0630 EST. A special announcement for the National Radio Club will be aired during this time period. This announcement will contain a Morse code ID. This will be mixed with KVOX's normal music programming. KVOX will be using its nighttime facility. Our thanks to Mr. Bob Holtan General Manager for this fine opportunity! Arranged by the Colorado CPC Machine for the National Radio Club.

KLEY-1130, KLEY Drive, Wellington, KS 67152 will present a special DX TEST on Sunday Morning November 4, 1990 from 0630 to 0700 EST. This test will consist of test tones, march music voice and Morse code ID's. Our thanks to Mr. Vernon Napier, Chief Operator for this test. Arranged by the Colorado CPC Machine for the National Radio Club.

WSYB-1380, P.O. BOX 249, Rutland VT 05701 will conduct a special DX TEST on November 11,

1990 from 0530 to 0600 EST. This test will consist of normal AdCon music programming with interspersed voice and Morse code ID's. Our thanks to Mr. Tom Elmore for this test. Arranged by the Colorado CPC Machine for the National Radio Club.

WARU-1600, P.O. BOX A, Peru, IN 46970 will conduct a DX TEST on November 12, 1990 from 0200 to 0230 EST. This test will consist of Voice ID's, Code ID's and March music. We would like to thank Chief Engineer Mr. James L. Swearingen for this test. Arranged by the Colorado CPC Machine for the National Radio Club.

KRXY-1600, 7075 W Hampden Ave. Denver, CO 80227 will conduct a SPECIAL DX TEST on November 12, 1990 from 0230-0300 EST using 5000 non-directional. The test will contain both Morse Code and Voice ID's. KRXY will be silent for the preceding 1/2 hour and will be conducting routine maintenance. Our thanks to Girard M. Westerberg Chief Engineer. Arranged by the Colorado CPC Machine for the National Radio Club.

KORN-1490, 319 North Main, Mitchell SD 57301 will conduct a Special DX Test on Friday Morning November 16th from 0500 to 0530 EST. Test details will follow. Our thanks to Mr. Joseph R. Shields for this test. Arranged by the Colorado CPC Machine for the National Radio Club.

(Continued on page twenty-three)

DX Time Machine

From the Pages of DX News

50 years ago ... from the Oct. 21, 1940 DXN: Convention news was reported by Ray B. Edge and Mr. Up Paul Knight.

25 years ago ... from the Oct. 23, 1965 DXN: The deaths of Ray B. Edge, his wife Catherine, a grandchild, Timothy Gill, and young friends Gregory and Cathleen Carberry, in a head-on car crash, were announced.

10 years ago ... from the Oct. 20, 1980 DXN: From treasurer Dick Truax: the NRC had spent \$17,971.87 during V. 47, through Sept. 30, 1980.

THE WORLD'S OLDEST AND LARGEST ALL MEDIUM-WAVE DX CLUB

Domestic DX Digest - East

DX Catches in the Eastern U. S. and Canada, with 24-hr. ELT

William Hale

734 Burleson
San Marcos, TX 78666

MEDIUM WAVE ramblings

- A good start on the new season with a representative sampling of DX from varied sections from the 'east'. I watch the Weather Channel, so know it's getting cold up north. However, we are still 'suffering' through 80s and 90s down here.
- To those of you who send me copies of your DX reports...please make sure everything on the original comes through on the copy. Some are fairly illegible, which makes doing this column that much more difficult.
- I've received three 'suggestions' to change the time reporting system to GMT. Personally, I have no objection. But we have to agree upon it as a club, not just us easterners. What does everybody think?? Let Wayne and me know and we'll see what develops.
- I received another 'catalog' from DX Radio Supply out of Wagontown, PA. Lots of book offers including a great deal for a '91 WRTM. Write for your copy of this catalog and mention DDxD-E. You won't get any discount, but I'll get to stay on their mailing list, hi. Their address is P.O. Box 360, ZIP 19376.

SPECIAL

AM STEREO
630 CKRC

- 640 WBRX MI ZEELAND - back on the air 9/20 after a 3-week silence with a 50% C&W/50% B.SOL format, alternating each record (really!); hours are uneven, was on 0900-1800 today (PLB-MJ)
- 990 CHTX PQ MONTREAL - noted 9/16 2219-2256 on new frequency with IDs as: "CHTX, Montreal's 990 Hits"; program "Open House Party" had POP mx and call-ins (RUGG-PQ)
- CHTX PQ MONTREAL - 9/21 2143 noted poorly but with strong peaks with ID "Our official calls are CHTX, but our Friends call us Montreal 990 Hits"; moderate WILK splash and mixing with probable WEEB-NC which had local FB (HJH-PA)
- 1050 CFYN ON SAUL STE MARIE - 9/15 2030 with Solid Gold Saturday Night; IRCA's [Who??? - Ed.] Canadian Korner column sed this one had changed to CIRS but, per 2100 ID, is still CFYN (REH-ON)
- 1360 WKHI MI KALAMAZOO - 9/20 0730 with "KHI News"; not WUFR(FM) during morning drive; "WKHI Kalamazoo" ID @ 0800; there has been no CL change here as reported in SPECIAL (Issue 29); they must have mis-ID'd for Rick (REH-ON)
- 1410 WGRD MI GRAND RAPIDS - as on 9/20, has been on night power (approx 30 watts) [NRC Log sez 48 - Ed.] continuously for the last two months; apparently the 1kw rig is busted and they don't feel like fixing it... (PLB-MJ)
- 1500 WXY VA SALTVILLE - 9/14 0801 noted with new CL and legal ID: "AM-1600 is my country. WXY Saltville - Chilhowie" - C&W mx; ex:WXXK and REL; VA #165 (REH-ON)
- CHNR ON SINCE - add this station to the Blue Jays network (DI-ON)

UNIDS AND UNID HELP

- 1020 UNID ?? - 9/16 2310 poor with announcement for local church meetings and picnic; no church or town mentioned, - C&W mx (SA-MB)
- 1250 UNID ?? - 9/22 0900 with Weekend program; looped E/W (MH-NE)
- 1350 UNID ?? - 9/20 1946 ID: "Solid Gold, WPBI" (MH-NE)
- 1360 UNID ?? - 9/20 0800 with sign-on "Your good news station, KNIN broadcasting at 1000 watts" (MH-NE)
- 1440 UNID ?? - 9/16 0030 good with church bells; mention of "Mexico" - lively mx; male and female announcers (SA-MB)
- 1450 UNID ?? - 9/16 0130 fair with Colorado State (vs Arizona State) FB game wrap-up (SA-MB)
- 1500 UNID ?? - 9/16 0719 poor with polka mx, but sounded like SS words (SA-MB)
- 1530 UNID ?? - 9/15 2230 poor with C&W mx [Travelling Willburys] (SA-MB)

MIDNIGHT TO 0800 HOURS ELT

- 550 KFVR ND BISHARCK - 9/23 0153+ good atop w/ROK oldies, "K-Fire" IDs; also 9/24 0004+; haven't hrd this one in years! (RF-OK)
- 570 KLDD TX DALLAS - 9/23 0023 ID: "The new Warm 97.9 FM in Dallas; soft mx (MH-NE)
- 590 CKRS PQ JONQUIERE - noted 9/4 0002-0007 @ very good level; female with nx in FF, followed by sports; ID @ 0004 "Ressau Radio Mutual"; had jingle at 0006 "On est pour vous, CKRS" followed by Mutual network mx (RUGG-PQ)
- 600 CFCH ON NORTH BAY - 9/23 0003-0024 with nx from Broadcast News, and the network CHR pgm "Coast-to-Coast"; ads for Capital Building Center in Callander and North Bay Paint and Wallpaper; several deep fades, o/WIAC; fair signal (RCW-MJ)
- 640 CHOG ON RICHMOND HILL - 9/17 0640 poor with heavy rock, Blue Jays sports talk; ON #75 (SA-MB)
- 680 WCAW WV CHARLESTON - 9/31 0708-0712 nx with West Virginia mentioned, "WCAW Traffic Watch"; override WISR (DI-PA)
- 820 WBP TX FT. WORTH - 9/2 0049-0053 with Texas Rangers vs Oakland A's MLB, ad for Dallas-Ft Worth Ford Dealers; "Voice of the Great Southwest, WBP"; fair (DI-PA)
- 840 KMPN NE WEST POINT - 9/20 0653-0711 with oldies, IDs as "AM 84 and FM 108" and "Regional radio for Northeast Nebraska, KMPN AM and FM, West Point", followed by AP Net Nx, "State News Headlines" read by Brian Patrick and sports with Russ Herman; good signal o/WHAS until fadeout (RCW-MJ)
- 980 KOKA LA SHREVEPORT - 9/23 0200 with rambling FB, ID: "All-Gospel 980, KOKA" (MH-NE)
- 1120 KANN UT ROY - 9/16 0717 fair with REL choir mx program; UT #20 (SA-MB)
- 1450 KBFS SD BELLE FOURCHE - 9/16 0200 poor with "KBFS" ID, under KBMW; SD #32 (SA-MB)
- 1460 KTLK TX LUBBOCK - 9/16 0720 good with "KILK Lubbock" ID in local ads; Mexican mx; IX #30 (SA-MB)

0800 TO 1600 HOURS ELT

- 550 CHND ON SUDBURY - 9/16 0902 strong with "CHND News", "CHND Wx"; ON #74 (SA-MB)
- 1300 KOLY SD MOBRIDGE - 9/16 0822 good with football scores; "KOLY" ID - C&W mx; SD #33 (SA-MB)
- 1370 KCRV MO CARUTHERSVILLE - 9/22 0815 with southeast Missouri wx and HS FB scores (MH-NE)

1600 TO 2400 HOURS ELT

- 600 CFCH ON NORTH BAY - noted 9/3 2300-2305 and 2357-2359; local CFCH was silent temporarily; they had XR troubles and the army prevented access to the XR site in disputed Indian land; at 2300, CFCH had "Broadcast News", sports and ID, with fair reception; ad cluster @ 2357, very good reception; CFCH last heard onNNRC DX in 11/64! (RUGG-PQ)
- 780 WCKB NC DUNN - 9/23 1930 poor - fair with sign-off mentioning 1000 watts; mx was GDS; no WBBM at this time (HJH-PA)
- 850 WJAC PA JOHNSTOWN - 9/19 2215 noted extremely strong with ROK OLD; calls itself "Oldies Channel"; 1st time heard and long needed; heard on subsequent nights also; new pattern? (HJH-PA)
- 950 WYV NY NYDE PARK - 9/19 2243 oldies mx with ID; very weak, rarely heard (HJH-PA)
- WSPA SC SPARTANBURG - 9/1 2341-2400 BBD mx with Woody Herman, etc., CBS Nx; GSI back already (DI-PA)
- WXB VA RICHMOND - 9/21 2043 ID with wx and C&W mx; good (HJH-PA)
- 970 KSYL LA ALEXANDRIA - 9/20 2301 ID during Astros BB; I believe this was my UNID in Issue 30 (MH-NE)
- KIXL TX DEL VALLE - 9/21 2031 with mentions of "Austin" in ads and Austin HS FB game (MH-NE)
- 990 KRND MO MONETT - 9/21 2012 with Monett Cubbs vs Webb City Cardinals HS FB (MH-NE)
- 1010 KBTS AR LITTLE ROCK - 9/22 2307 ID after nx - TalkNet (MH-NE)
- KDJM TX AMARILLO - 9/22 2317 strong, with wx FM (MH-NE)
- 1030 WDBX TN WHITE BLUFF - 9/18 2045 heard "Highway 70 in Dickson"; White Bluff is near Dickson, so I assumed WDBX (MH-NE)
- 1140 WVEL IL PEKIN - 9/20 2014 GDS Format - sign-off with some info; very strong (MH-NE)
- 1190 KWHB TN WABASHA - 9/23 2015 sign-off saying they return at 0800; no SSB heard (MH-NE)

- 1220 WFAZ UA FALLS CHURCH - 9/16 1900 very strong at times with severe I-Storm warnings; Format:REL (KHJH-PA)
 CKBW NB MONCTON - 9/16 1913 coming up strong at times, mixing with WFAZ; ID and had "Open Houseparty", a rock show off the bird (KHJH-PA)
- 1230 WMRZ IL EAST MOLINE - 9/21 2301 ID: "WLLR Moline-Davenport-Quad Cities" on FM (MH-NE)
 WHCO IL SPARTA - 9/22 2007 with oldies mx, many IDs (MH-NE)
- 1260 CHTI NB FREDERICTON - 9/16 1937 strong with ROK and "See-High" IDs; overall tonight a good night to the NE (KHJH-PA)
 WUOK IN EVANSVILLE - 9/21 2259 with non-IDs as "OK Radio"; oldies (MH-NE)
- 1300 WOOD HI GRAND RAPIDS - 9/9 2240-2300 with NBC Nx, ads for Jeep and Peter Pan video, promo for a WOOD pgm; poor (DI-ON)
 KOLY SD MOBRIDGE - 9/21 2045 with Mobridge HS FB; new (MH-NE)
 WXL IL PEORIA - 9/23 2031 strong with IDs and DJ chit-chat (MH-NE)
 CKBC NB BATHURST - 9/19 2342 very strong at times over WDRC; promo for "Listen While You Work Club" and for United Way; slogan: "AM One-Three-Six" (KHJH-PA)
- 1380 KOTA SD RAPID CITY - 9/21 2052 w/ad for Rapid City Bank, ID (MH-NE)
 WUJS KY OWENSBORO - 9/23 1948 IDs as "Oldies 1420", OLD mx, mentions of "AM Stereo" and ABC Nx on the hour; fair, mixing with WHK (RCW-MI)
- 1420 WYUT NY HERKIMER - 9/9 2011 fair at this time with Burns and Allen Show; also MoVL IDs (KHJH-PA)
 WHIS WU BLUEFIELD - 9/23 2017-2031 with oldies, IDs as "Fun Lovin'" WHIS, 1440"; poor, under WNFL (RCW-MI)
 WNFL WI GREEN BAY - 9/23 2008 with Baseball Sunday and local ads for Servio's Restaurant in Green Bay; fair, mixing with WHIS (RCW-MI)
- 1490 WAZL PA HAZELTON - 9/19 2123-2200 with Phillies vs Cardinals BB, station break: "...Phillies baseball network", "WAZL Hazelton, PA"; poor over/under two others (DI-ON)
 KFNN AZ MESA - 9/16 2035 poor with talk on business opportunities in Mesa; AZ #8 (SA-MB)
 KLLB UT WEST JORDAN - 9/16 2030 good with "KLLB" ID, EZL jazz mx; UT #31 (SA-MB)
- 1530 KXTD OK WAGONER - 9/21 2108 with HS FB and ID as "Sportsradio 640, WMLS, Moore-Norman and 1530 KXTD, Wagoner-? ? ?" (MH-NE)
 [The ? ? was probably Broken Arrow as that's their mailing address...Wow, do they simulcast??? - Ed.]
 XGBT TX MARLINGEN - 9/15 2130 fair with Mexican mx program under WCKY; TX #29 (SA-MB) [Shawn, this is correct city - Ed.]
- 1540 WABQ OH CLEVELAND - 9/15 2010 fair with "WABQ, where gospel and music goes on"; OH #34 (SA-MB)
 WCYZ TN CLARKSVILLE - 9/19 2043-2109 with EZL mx; very weak under CBE (DI-ON)
- 1560 KKAA SD ABERDEEN - 9/23 2058 with C&W mx, ID as "AM 1550, your brand of country and much more. This is KKAA Aberdeen" followed by mx from SNN; under WQXR with several deep fades; overall poor signal (RCW-MI)
- 1590 WQQW CT WATERBURY - 9/12 2240-2300 OLD, female announcer, "WQQW Community Calendar"; poor, under/over WAKR (DI-ON)

REPORTERS



- PLB-MI PHIL BOERSHA//Spring Lake, MI//
 SA-MB SHAWN AXELROD//DXPedition at Kecla Island, MB//R-70 + 1000" LW or 1300' LW
- REN-ON CHARLES REN//Leamington, ON//R-390A + Sanserino Loop + TR-3000 open reel tape deck
- DT-PA DON TRELFOED//attending the Pittsburgh col(ion)vention//DX-440
 DT-ON DON TRELFOED//Scarborough, ON//
 RCW-MI BOB WALKER//Wixom, MI//ICF-2010, ICF-2003 + Radio West Loop
 RUGG-PD ANDY RUGG//Pointe Claire, ON//TRF and car radio//postmark 24 IX 1990...rec'd 28 IX 1990, hi
- MH-NE MIKE HAWK//Omaha, NE//R-1000 + 2' coax loop
 RF-OK RICHARD FRCHO//Willoughby, OH//R7A, NRD-515, SM-1, LW 73
 HJH-PA HARRY HAYES//Wilkes-Barre, PA//Superadio/SH-2

Join the verification game!

Now, you can help out with station tests. Here's how: Send Wayne Heinen - 4131 S. Andes Way - Aurora, CO 80013 two 25¢ stamps per station, and Wayne and Jeff Tynan will print and mail an effective test request letter for you. You can either specify station and time, or just take pot luck. Increase your veries and help other NRC'ers at the same time ... join the verification game!

Domestic DX Digest - West

DX Catches in the Western U. S. and Canada, with 24-hr. ELT

Wayne Heinen

4131 S. Andes Way
 Aurora, CO 80013
 FIDO NET 104/108
 (303) 699-6335 (prepaid only)

Welcome to the Colorado addition of DDxD-W. This section should have some interesting loggings as the Denver Metro area gears up for a local contest. The rules are simple: JT, WH and OW started at 0 loggings 8/30. Log all you can between then and 4/30/91. The losers have to pay for the beer and pizza!

Midnight to Midday!

- 930 WTAD IL Quincy
 9/24 0601 Snagged simple ID thru QRM; Logging #998 (OW-CO)
 570 KVI WA Seattle
 9/30 0843 Fair to Good w/ "57-KVI" OLD format. WA #9. (JT-CO)
 930 CJCA AB Edmunton
 9/29 0833 Strong w/OLD & promo for CJCA Incredible Gift Catalog. AB #21 (JT-CO)
 1010 KCHI MO Chillicothe
 9/28 0032-0114 Royals vs Angels "On the Royals BB Network" garbled ID at 0100 o/u KXEG & CBR. (WH-CO)
 1190 KWMB MN Wabasha
 9/28 0744 Ending AgriNet Stock news w/lcl spot & ID. Fair w/KVSV (WH-CO)
 1210 CFYM SK Kindersley
 9/28 0655 Coast to Coast OLD Net to CJYM/CFYM ID and lcl Nx by lady. Fair o/u KGYN (WH-CO)
 1220 KGIR MO Cape Girardeau
 9/27 0314 Poor "AM 12-20 KGIR" possibly SMN OLD. MO #30. (JT-CO)
 1270 CHAT AB Medicine Hat
 9/28 0705 End lcl wx w/ID and the "Star Country" Radio network. C&W Mx (WH-CO)
 1490 KRIB IA Mason City
 9/26 0255 Promo for Paul Harvey; OLD Mx; 0259 "You're listening to North Iowa's Oldies Station, Stereo KKID, KRIB Mason City" & OLD Mx. Logging #999. (OW-CO)
 1490 KGOS WY Torrington
 9/27 0200 Ai Nx 0205 s/off ann Studios & Xmtr on W. Valley Rd. 1000w addr Box 670. (OW-CO)
 1510 KGA WA Spokane
 9/28 0825 C&W Mx to lcl wx "15-10 KGA Country" and Paul Harvey at 0630. Lcl KDKO nulled (WH-CO)

Midday to Midnight!

- 860 KVVA AZ Phoenix
 9/21 2345 Latin/Salsa Mx, PSA for benefit dance o/u KKOW, KOA slop. (OW-CO)
 920 KVELt UT Vernal
 9/22 2129 Utah vs Hawaii FB on Utah FB work. Lcl Furniture store. Poor in QRM. (OW-CO)
 1300 KOLY SD Mobridge
 9/21 2048 Live HS FB Mobridge Tigers vs Sisseton Redmen. Dominating the channel. (OW-CO)
 1460 KDMA MN Montevideo
 9/21 2245 Wrap up of Montevideo Mohawks vs

St. Cloud Cathedral Crusaders HS FB. 2300 Ai Nx, 2305 Goose Hunting Report. Good on Peaks. (OW-CO)

UNID

1060 UNID

9/28 0115 Somebody here w/ Bohanon show. Good signal listened thru 0207. Each lcl break was filled w/DEAD AIR. From Signal Strength could have been WNOE. Was mixed with but generally o/KUKQ & KGFX. (WH-CO)

Contributors!

(OW-CO) John Wilkins; Wheatworm, CO - R-1000, 2'6" loop
 (JT-CO) Jeff Tynan; Parker, CO - Sony-2002 w/ 2401si Loop
 (WH-CO) Wayne Heinen; A Roar, CO - R-390A, RW-TRF-655, 4' NRC loop

NRC AM Radio Log

1991 Edition

New - and only \$16.95

The Log is 30% thicker and over 300 pages long, including two cross-reference sections. It contains more station information than ever before! Mail or call your order in now. Specify your mailing and address and number of Logs ordered. Order from NRC Publications (address on back) or use your credit card (VISA/MC) and call (608) 423-4159. (Canada, \$17.95; non-members and foreign, write.)

International DX Digest

Foreign DX Catches. Times are UTC; for ELT, subtract 5 hours

Our reports this month are from Shawn Axelrod and Wayne McRae's Manitoba DXpedition and from Dale Park in Hawaii. All times UTC/GMT. Please submit loggings in order of frequency. Dale suggests listing according to zones, so we'll give it a try.

EUROPE/AFRICA

870 UNID Q110 9/17. Poor, with M annr. in foreign language and lively mx. [SA/WM] (Czechoslovakia is 24 hrs, but maybe a 1/2 harmonic from Mexico? - was it an Eastern European or Romance language? - Jim)

CENTRAL/SOUTH/NORTH AMERICA/CARIBBEAN

770 EL SALVADOR R. Universa, San Salvador 0410 9/16. Fair, w/LA mx, then ID by W annr. [SA/WM]

1000 MEXICO XEOY, Mexico City 0626 9/16. Good w/Mexican mx, M & W announcements, w/KTOK. [SA/WM]

1440 UNID 0430 9/16. Good, w/church bells, then M mentions Mexico, into lively mx and announcements [SA/WM] (4 stations listed in WRTH - Jim)

1530 MEXICO R. Onda, Mexico City 0520 9/16. Fair w/ID, talk and mx.

ASIA/OCEANIA

540 AUSTRALIA 4QL, Longreach 1422 9/12. Carole King's "You're So Far Away," Billy Vera and the Beaters' "I Can Take Care of Myself" @ 1446 W DJ w/talk, promo for ABC program "My Grandmother: An International Literacy Year Special" now avail. on cassette; mx by Kenny Rogers, Mike and the Mechanics. All // 4CH-603, 4QR-612, 4QN-630. Poor, QRM KMVI-550. [DP-HI]

603 AUSTRALIA 4CH, Charleville 1440 9/12. Same programming as 4QL-540. Very poor; QRM KSSK-590 [DP-HI]

639 AUSTRALIA 5CK, Port Pirie 1530 9/12. Man ending nx w/Item on Miss Australia 1989's bunji-cord-jumping accident, outro "(name), ABC news!" local woman w/song, then David Bowie's "Modern Love," fading out, then faded back w/DJ // 891, so this is S. Australia! Into Robert Cray Band. Poor; o/u/tentative 2CS which had Cat Stevens song, M DJ w/talk and TC "17 before two." My first 5-- station! [DP-HI] (Great catch!! - Jim)

792 AUSTRALIA 4QG, Brisbane 1536 9/10. M w/nx, mentions of R. Australian @ 1545 Men at Work's "Down Under" DJ talk, jingle "R. Australia, Bringing Australia to Your World;" TC "It's now 13 1/2 minutes to five (?), Brendan Telford

Jim Renfrew

61 Wilcox Street
Rochester, NY 14607-3832

w/"Sports News." Note that this was not // to RA on SW or other ABC MW stns. Very poor; KKDN-790 off for some reason until 1532 but not audible, very heavy QRM. [DP-HI]

1440 JAPAN JOWF, Sapporo 1419 9/06. End of Prince's "Thieves in the Temple," ad string, M w/talk as New Age mx played in background, ments. of Sapporo and Hakodate, into discussion w/2 men. New. Poor, local QRM/QRN. [DP-HI]

1575 THAILAND VO Free Asia, Bangkok 1459 9/03. VOA s/off, pause, @ 1500 M w/ID "This is the Voice of Free Asia, Bangkok, Thailand. The following is our EE program which is broadcast every weekday (fanfare)," M w/heavy accent w/preview and mx. Poor, tent 200 in back, local QRM/QRN. [DP-HI]

Contributors

[SA/WM] Shawn Axelrod & Wayne McRae, Mecla Island, MB DXpedition, ICOM R-70, 1000' & 1300' wire

[DP-HI] Dale Park, Honolulu HI, Sangean ATS-803A, Selec-A-Tenna.

Shawn reports that the 9/16 sky was 60% plus covered by the Northern lights, and that many other stations were heard, with only the new ones listed above.

As with all column editors, I am already in struggle with clarity and brevity. I think it's important to not confuse new-comers, while at the same time saving space. Not easy! QRM is interference from another station. QRN is noise or static produced locally or in the atmosphere. M is a male announcer or DJ and W is a female. o/ is over, and u/ is under.

After two missed deadlines (sorry, folks), it looks like the mail must be sent from here no later than Monday to reach Topeka by Saturday. So aim to get your reports to me by Saturday.

Jim

Tango Music Is Hard To Find On Buenos Aires Airwaves

BUENOS AIRES, Argentina. None of the privately owned FM stations in what is known as the Tango Capital of the World actually plays tango music. The fast growth of the FM market here has led to a slow but steady decline in AM audiences. Of the nine privately owned stations in this city of 12 million people, five took up easy listening or adult contemporary formats. Two are slanted to the "youth segment," one is classical, and one is crossover (local folk and international pop). Anglo-American influence is strong in the Buenos Aires FM market: Only three of nine stations play any Spanish language product.

AL KLEINMAN

Billboard
-via Dale Park

Formats

Tony Fitzherbert

356 Jackman Avenue
Fairfield, CT 06430

Changes in programming status; reported by NRC members and others

I hope that everyone who made it to the Steel City over the Labor Day weekend enjoyed the Convention. I know that John Malicky organized a memorable occasion. I regret having missed it, being buried under PTA work, all with target dates for the opening of school. After open houses, teachers' meetings, etc, I hope to do some time at the dials.

Upon returning from our annual mountain climbing vacation in the White Mountains, with updates on area locals listed below, my mail contained several notes about the almost unthinkable.....WCAU-1210, of Philadelphia is gone. Vic Melis, Dave Schmidt, and Eric Bueneman of NRC and Al Holtz and Gary Olden who also contribute to the column had sent the story....which leads one to wonder if any AM'er is safe today. Vic Melis notes that "At 1:05PM, 8/15, CBS execs retired WCAU calls, news/talk format, and many of its 60 staffers (with absolutely no notice, according to press clips). WOGL-AM now simulcasts with its FM 'Oldies 96' from 10:00pm to 10:00am, then goes to separate oldies programming for older demographics with more 50's and 60's oldies. During these hours, it is known as "Oldies 1210" with My Lit 10am - 2pm and Harvey Holiday from 2pm - 6pm (both once on 990 rocker WIBG)....." WCAU was #14 in the last Arbitrons and its FM went from #15 to #3. An appreciation of WCAU will be summarized from the mountains of clips for Station Profiles.

Vic also notes that WIBG-1020 is on the air as a daytime VIS station. Less than two minutes of the 15 minute tape loop contain any info for visitors. 10 minutes of the loop was devoted to an interview of a casino game show host and his career. Other short segments on the tape contained format promos by listeners, appeals for Sunday worship programming, and a salute to "our boys in the Mideast conflict". Except for the hourly legal ID, this station refers to itself as VIR-1020 (Visitor Information Radio).

Along with the above mentioned contributors, Geov Parrish who produces a similar column for IRCA has contributed. And Eric Bueneman has contributed two Dial Scans. Thank you very much for all of your information. Here we go.....

- | | | |
|--------------|------------------|--|
| 540 WJLS WV | Beckley | - All religion (EB). |
| 610 WPLO GA | Lawrenceville | - CWM "Stereo 610" and "The Legend is back" (EB). |
| 730 WJTO ME | Bath | - Indeed silent (TF). |
| 820 KCBF AK | Fairbanks | - SMN Kool Gold oldies (GP). |
| 830 WGBU GA | Smyrna | - To be Religion (EB). 17th station in market to offer this format (TF). |
| 870 WKZN ME | Gorham | - Now here, ex-1590, Mutual, MYL, Red Sox, better signal than before. |
| 910 WNHV VT | White River Jct. | - AC, Talk, AP net. (TF). |
| 1020 WNTK NH | Newport | - "News/Talk 1020"(TF). |
| 1110 WUHN MA | Pittsfield | - Drops MYL for SMN pure oldies (GP). |
| 1230 WMOU NH | Berlin | - All satellite oldies, local programming from 0605-0900, and a 30 minute info block at 1705, otherwise news of an earthquake in Berlin at 1815 will wait until the following AM (TF). |
| 1230 WTSV NH | Claremont | - "Oldies 1230", often live assisted (TF). |
| 1230 WEEB PA | Easton | - SMN Pure gold, drops CWM (DS). |
| 1240 WOGA GA | Gainesville | - Sun Net talk (EB). |
| 1240 WXGL ME | Lewiston | - All oldies//FM93.9.(TF). |
| 1240 WAGO PA | Reading | - Mix of AC and oldies 60's-80's(VM). |
| 1250 KZOU AR | Little Rock | - CHR//FM (GP). |
| 1340 WDCR NH | Hanover | - Mostly AOR, Dartmouth College's radio station (TF). |
| 1340 WRAP PA | Reading | - Oldies Channel, drops MYL (VM,DS). |
| 1370 WPAZ PA | Pottstown | - Adds Penna. Dutch program 1800-1900 Thurs, otherwise MYL, Polkas Sat AM and Religion on Sundays (VM). |
| 1400 WBRL NH | Berlin | - Still silent (TF). |
| 1400 WLTN NH | Littleton | - Full service CHR(TF). |
| 1400 WTSB NH | Hanover | - Soft oldies (TF). |
| 1400 WYBX NY | Buffalo | - Rock, "The X" (GP). |
| 1420 KYNG OR | Coos Bay | - Silent (GP). |
| 1450 WLAR TN | Athens | - CWM//FM (GP). |
| 1480 WCFR VT | Springfield | - AC, //FM KISS 103.5(TF). |
| 1490 WLGW NH | Lancaster | - CHR, Mutual net (TF). |
| 1500 WDPC GA | Dallas | - Back on air w/ CWM and Southern Gospel (GP). |
| 1580 WMRE TN | Knoxville | - Religion (GP). |



And on to a Dial Scan from the St Louis area by Eric Bueneman...

550 KUSA MO St Louis - CWM, ABC Directions net., Interstate radio net, "55 Country".
 590 WCBO IL Wood River - BRN Business News, "Business radio 590".
 630 KXOK MO St Louis - All News, A(i), CNN overnight, "All News 630"
 690 KSTL MO St Louis - Religion in AM, Spanish in PM.
 730 KWRE MO Warrenton - SMN CWM, Live assist 0600-1000, 1500-2000.
 770 WEW MO St. Louis - Unistar MYL.
 850 KFUD MO Clayton - Religion, mostly locally-produced.
 920 WGNU IL Granite City - Variety, station owned by veteran St Louis radio personality Chuck Norman.
 1010 KXEM MO St Louis - Christian Information, some Southern Gospel and Contemporary Christian.
 1080 WRYT IL Edwardsville - SMN Stardust, "Right Radio".
 1120 KMOX MO St Louis - News/talk/Sports/EZL "The Voice of St. Louis".
 1250 WIVB IL Bellville - Talk, MBS, Talknet, L. King, "Talk of the Metro East".
 1320 KSIV MO Clayton - Christian Info "St. Louis' Spiritual Voice".
 1380 KGLD MO St Louis - Oldies, live days, satellite nights, "1380 K-Gold".
 1430 WIL MO St Louis - Drops CWM for BBD, "The New WIL AM 1430".
 1460 KIRL MO St Charles - Black gospel days, jazz 2200-0600.
 1490 WESL IL East St. Louis - Black gospel, contemporary Christian "Power 14.9".
 1510 WINU IL Highland - Adult standards, soon to be on 880.
 1570 WBGZ IL Alton - AC, "The Big 2".
 1600 KATZ MO St Louis - Black Gospel, Motown oldies, rap, some // KATZ FM.

And Eric Brings us to Atlanta for a Dial Scan.

550 WDUN GA Gainesville - AC/Oldies/talk/Talknet/L. King/Jim Bohannon "AM 55".
 590 WKHK GA Marietta - Motor racing net, otherwise CWM //FM, "Kicks 101.5", both stations ID Marietta/Atlanta.
 640 WGST GA Atlanta - News/Talk "Newsradio 640"
 680 WCNN GA North Atlanta - All news, CNN Headline News overnights "All News 680"
 710 WROM GA Rome - Southern Gospel "Gospel 71".
 720 WMYX GA Hogansville/LaGrange - UC "X-720".
 750 WSB GA Atlanta - News/talk, some AC, "Depend on AM 750 WSB".
 790 WQXI GA Atlanta - Unistar AM only, NBC Talknet, "The Memories Station".
 860 WAEC GA Atlanta - Contemporary Christian, USA Net, "Love 86".
 900 WJTH GA Calhoun - CWM.
 920 WAFS GA Atlanta - Moody Religion. USA/IMS nets. "Moody Radio 920"
 970 WNIV GA Atlanta - Contemporary Christian, 39 watts at night!
 1010 WGUN GA Atlanta/Decatur - Southern Gospel, 70 watts at night.
 1050 WPBE GA Conyers - AC/Oldies "PB-1050"
 1060 WKNG GA Tallapoosa - CWM "Country King".
 1080 WFTD GA Marietta - Skyline religion, call stands for "Waiting for the day" (of Christ's return)!
 1110 WEBS GA Calhoun - Variety.
 1130 WLBA GA Gainesville - CWM, Religion on Sundays.
 1170 WHNE GA Cumming - Contemporary CWM.
 1190 WGKA GA Atlanta - CLA/EZL "Atlanta's Fine Arts Station".
 1210 WDGR GA Dahlonega - Oldies/CHR.
 1230 WFOG GA Marietta - BRN Business news days, religion at night and on Sundays.
 1240 WGGG GA Gainesville - Oldies/CHR//FM, talk days.
 1260 WTUH GA East Point - Black gospel.
 1270 WYXC GA Cartersville - CWM "Wixie".
 1290 WCHK GA Canton - Southern Gospel 1200-1700, local news 0900-1200, otherwise CWM//FM "K-Country 105.7".
 1310 WXLL GA Decatur - Black gospel "XL-1310"
 1330 WKZD GA Murrayville - AC/CHR "KZ-1330".
 1340 WIGO GA Atlanta - Motown oldies, some SMN "Classic Soul AM 1340".
 1360 WTSH GA Rome - CWM //FM "South 107".
 1360 WGNN GA Lawrenceville - CWM/Talk, call stands for Gwinnett County, soon to be if not already WPLG, and on 610.
 1380 WAOK GA Atlanta - Black gospel/Talk "Black Atlanta Listens to AM1380, WAOK".
 1410 WLAQ GA Rome - AC/CBS Net.
 1410 WZAL GA McDonough - AC/CHR "Henry County Radio".
 1420 WAVO GA Decatur - BBN Religion, directional to protect WLAQ, WZAL, WLET, WRCG.
 1450 WBHF GA Cartersville - SMN AC.
 1460 WLKQ GA Buford - Oldies //FM "Oldies Radio Lake 102".

1470 WRGA GA Rome - CWM.
 1480 WYZE GA Atlanta - Black variety "The Wise Old Radio Station".
 1490 WYYZ GA Jasper - Southern Gospel days, CWM nights.
 1520 WDCY GA Douglasville - Southern Gospel.
 1550 WYNX GA Smyrna/Atlanta - Contemporary Christian, CBN Net.
 1570 WSSA GA Morrow/Jonesboro - EZL Gospel, Southern Gospel.
 1600 WAOS GA Austell/Atlanta - Spanish Salsa music "La Favorita".

And now you have listened to St. Louis and Atlanta radio....must be hard to DX in Atlanta. Thank you, Eric....and to our other contributors.
 73's

Professional Sports Networks

Barry S. Finkel

10314 S. Oakley
Chicago, IL 60643

Network listings for team sports stations

Here are the guidelines for this column. I will accept any network list for professional sports teams. I will not accept information on college teams for a number of reasons: 1) There are too many teams, and I do not have the time to do all the data entry; 2) I am opposed to big-time college sports. But there is an avenue for those who want college network information. You can send college lists to

Rick Dau, RR2 Box 64, Oakland IA 50560;

he has agreed to be the college sports column editor. (I have already forwarded one college list to him.)

As for the NFL networks -- here is information from "Broadcasting" 9/13/90 (via Ken Onyschuk), from local newspapers, and from the stations themselves.

The Mutual Broadcasting System will carry 17 Sunday double-header broadcasts

CBS will carry 16 Monday night games, 8 Sunday night games, a Turkey day double-header, 2 Saturday double-headers, and one Saturday triple-header. The main announcing team, as before, is Jack Buck and Hank Stram. Other announcers include Jim Nantz, Pat Haden, Brad Sham, Howard David, Brad Nessler, Mark Champion, John Dockery, and Bill Wilkerson.

Here are the NFL flagship stations, network sizes, and announcers (when I know them). Please send me any lists (or announcer names) that you have. Let's try to get lists for all of the teams this year.

Atlanta Falcons	750 WSB -GA 65	
Boston Patriots	850 WHDH -MA 50	
Buffalo Bills	930 WBEN -NY 16	
Chicago Bears	720 WGN -IL 62	Wayne Larivee, Hub Arkush, Gary Fenc
	1200 WOJO -IL 0	SS Leon Martinez, Hector Molina
Cincinnati Bengals	550 WKRC -OH 50	
Cleveland Browns	1100 WWWE -OH 43	Nev Chandler, Doug Dieken
Dallas Cowboys	1080 KRLD -TX 22	
	-TX 13	SS
Denver Broncos	850 KOA -CO 55	
Detroit Lions	950 WWJ -MI 33	
Green Bay Packers	620 WTMJ -WI 53	Jim Irwin, Max McGee
Houston Oilers	740 KTRH -TX 50	
	101.1 KLOL -TX	
Indianapolis Colts	1070 WIBC -IN 26	
Kansas City Chiefs	100.7 KCFX -MO 53	
Los Angeles Raiders	640 KFI -CA 33	
Los Angeles Rams	710 KMPC -CA 24	
	KLIT -CA	
	1090 XEPRS-BC	SS
Miami Dolphins	610 WIOD -FL 27	
	1140 WQBA -FL ?	SS Pittsburgh Steelers
Minnesota Vikings	830 WCCO -MN 50	1250 WTAE -PA 35
New Orleans Saints	870 WWL -LA 40	96.1 WHTX -PA
New York Giants	1130 WNEW -NY 22	790 XETRA-BC 5
New York Jets	880 WCBS -NY 0	San Diego Chargers
Philadelphia Eagles	610 WIP -PA 30	San Francisco 49'ers
Phoenix Cardinals	620 KTAR -AZ 21	Seattle Seahawks
		710 KIRO -WA 55
		Tampa Bay Buccaneers
		104.7 WRBQ -FL 30
		Washington Redskins
		630 WHAL -DC 94

wblj
radio

P O BOX 899
DALTON, GA 30720

Here is Canadian Football League (CFL) flagship and announcer information courtesy of Morris Sorensen (from "CFL Facts and Figures 1990").

Morris also reports on a question in the August 27th column - "yes, the entire CKO network (AM + FM) is out of business, and the stations are silent."

J. Paul McConnell	British Columbia Lions	980 CKNW-BC
Kevin Gallant, Don Siler, Jamie Herbison	Calgary Stampeders	1140 CISS-AB
Wes Montgomery, Dan Kepley, Al McCann	Edmonton Eskimos	1260 CFRN-AB
Bob Bratina, John Michaluk	Hamilton Tiger-Cats	900 CHUM-ON
Dean Brown, Jeff Avery, Gord Wilson	Ottawa Rough Riders	580 CFRA-ON
Geoff Currier	Saskatchewan Roughriders	980 CKRM-SK
Marc Charlebois, Peter Martin	Toronto Argos	1050 CHUM-ON
Robb Glazier, John Bonk, Paul Bennett	Winnipeg Blue Bombers	1290 C1FX-MB

Minnesota Vikings 1990 John Carlson, Stu Voight (via Midwest Radio Networks)

550 KFYR-ND	920 KWAD-MN	1230 KGHS-MN	1380 KAGE-MN	1510 KMSD-SD
610 KDAL-MN	930 KSDN-SD	RTRE-MN	1390 KARZ-ND	
650 WKRQ-MN	950 KWAT-SD	KMRB-MN	1400 KMHL-MN	95.3 KGRG-MN
730 KWQA-MN	960 KLTF-MN	1250 KBRF-MN	KVFD-IA	97.7 KHBT-IA
790 KFGO-ND	970 KQAO-MN	1260 KROX-MN	KQDJ-ND	99.1 KEEZ-MN
800 KQAD-MN	1010 KLSB-IA	1290 KLEH-IA	1410 KRWB-MN	100.7 KIKV-MN
830 WCCO-MN	1060 KGFX-SD	1320 KOZY-MN	1450 KNSI-MN	101.1 KBHP-MN
870 KPRM-MN	1140 KSOD-SD	1340 KDLM-MN	1490 KLGR-MN	ROAD-MN
910 KJJC-SD	1210 KOKK-SD	1360 KEZY-ND	1510 KTTT-NB	102.5 KOIC-MN

102.5 KDVL-ND
103.9 KUOO-IA
105.9 KMIT-SD
106.7 WJZY-MN
106.9 KROC-MN
107.5 KNOX-ND



Chicago Bears 1990 (via WGN) Wayne Larrivee, Hub Arkush, Gary Fencik

550 KUSA-MO	1150 KCPS-IA	1370 KDTH-IA	1490 WZOE-IL	92.7 KCZY-IA
590 WJMS-MI	KCKY-AZ	KLBA-IA	WPHK-MI	94.1 WMIX-IL
720 WGN-IL	1230 WHCO-IL	1400 WBAT-IN	WDAN-IL	94.3 WNZE-IN
860 WSON-KY	1240 WSDR-IL	WDWS-IL	1550 KAPE-MO	95.9 WKUZ-IN
870 KROL-NV	1270 KTRT-OK	1420 WOC-IA	WCSJ-IL	96.7 WKXQ-IL
930 WAUR-IL	WEIC-IL	1450 WASK-IN	1560 WBYS-IL	WCOE-IN
960 WSBT-IN	1290 WIRL-IL	WCVS-IL	1570 WIFF-IN	97.7 WFRX-IL
1020 WCIL-IL	1310 KOKX-IA	WLVY-IN	WFRJ-IL	WLQI-IN
1050 WDZ-IL	1330 WRAM-IL	WDXR-KY	1600 KCRG-IA	WMOI-IL
1060 WRHL-IL	1350 KRNT-IA	1470 WQSN-MI		100.9 WKKO-IL
				102.3 WRHL-IL
				105.1 WGEM-IL
				107.1 WKPL-WI
				WSPY-IL
				107.3 WRSW-IN

KZIM-AM96

KOOL GOLD SATELLITE NETWORK

560	WQAM	FL	Miami
730	KUCB	IL	Boise
820	KCBF	AK	Fairbanks
850	WKIX	NC	Raleigh
910	WNEZ	CT	Farmington
920	KOLD	NV	Reno
930	KISS	TX	Terrill Hills
960	KOOL	AZ	Phoenix
	WBEU	SC	Ridgeland
1040	WHBO	FL	Pinellas Park
1090	WHYD	WI	Rice Lake
1160	WUNJ	NJ	Oakland
1170	KCBQ	CA	San Diego
1280	KQJX	OR	Eugene
1290	WDEC	SA	Americus
1300	KVND	CA	Fresno
1310	KEIN	MT	Great Falls
1340	WLAU	HI	Grand Rapids
1360	WAMS	DE	Wilmington
	WIZO	TN	Franklin
	WFCL	MI	Clintonville

1390	WCSE	SC	Charleston
1400	KULA	LA	Many
	WPHD	NY	Buffalo
1450	WKGL	AL	Huntsville
1490	KMET	CA	Banning
1540	KLAU	CA	Capitola-Sequel

99.1	KIZN	ID	Boise
98.3	WCOO	FL	Naples
105.5	WHMC	IL	Tuscola
106.7	KBGH	NH	Los Alamos

*KOOL is flagship station

AM call letters updated from NRC AM Radio Log.

List courtesy KOOL Gold Quarterly Newsletter Vol. 1, No. 1

Submitted by Bill Hale

College

Sports Networks

Rick Dau

R. R. 2, Box 64
Oakland, IA 51560

Network listings for team sports stations

Greetings, all, and welcome to the first edition of what I hope will be a well-supported column. This feature is designed with the same purpose as that of Barry Finkel's "Sports Networks" column, except this one differs in that it will feature collegiate listings from all NCAA divisions instead of professional networks (all pro networks, just as they have in the past, will continue to go to Barry). Therefore, it is up to YOU, as DXers, to provide me with as much information as you can to make "College Sports Networks" succeed. In the debut article, I want to thank NRCer Guy Kudlemyer and also the friendly folks at WHO radio and the Des Moines Register for supplying me the networks this time around. And now, here they are for your reading and DXing enjoyment:

IOWA HAWKEYES (Palmer Sports Radio Network) Jim Zabel, Ed Rodolakis

800 KAIC-IA	1370 KDTE-IA
950 KOEL-IA	1420 KOU-IA
1040 KHO-IA	1490 KBBR-IA
1180 KAAZ-NE	1570 KQWC-IA
1240 KICD-IA	1600 KCRG-IA
1270 KWEB-MN	
1300 KGLO-IA	103.9 KUGO-IA
1360 KSCJ-IA	107.1 K1TR-IA
	KTLR-TX



NORTHERN IOWA PANTHERS

1150 KCPS-IA	92.3 KOEL-IA	97.3 KDMI-IA
	105.5 KIWA-IA	106.9 KJJC-IA

OREGON STATE BEAVERS

730 KBOY-OR	1290 KUMA-OR	1450 KLSM-OR
1150 KAGO-OR	1310 KNPT-OR	1490 KBBK-OR
1190 KEX-OR	1340 KBBR-OR	1590 K1IL-OR
1230 KVAS-OR	1360 KOHU-OR	
KZZR-OR	1380 KSRV-OR	96.5 KWSI-OR
1240 KPLY-OR	1400 KJJD-OR	102.9 KNPT-OR
1280 KDUK-OR	1440 KODL-OR	103.1 KR5B-OR

As you might guess, the above lists are for football, and that will be the rule until around Dec. 1, when the basketball lists should start appearing. If possible, you should include announcer info and indicate who the flagship station is when you send me your lists. That's all for now. Turn on that radio, sit back, and enjoy the game! 73!

Rick

IN THE BEGINNING

BY JOHN D. BOWKER

THIS IS THE COMPLETE LIST OF U. S. BROADCAST STATIONS ON THE INDICATED FREQUENCY AS PUBLISHED BY THE FEDERAL RADIO COMMISSION IN 1934. "S" MEANS SHARED; "SH" MEANS SPECIFIED HOURS; "T" INDICATES TRANSMITTER LOCATION; "D" MEANS DAYTIME OPERATION ONLY; "U" MEANS UNLIMITED TIME.

Frequency (kc)	Call letters	Main studio and transmitter location	Power	Time designation
680, clear----	WPTF KPEQ KPO	Raleigh, N.C.----- St. Joseph, Mo.----- San Francisco, Calif.--- T—Near Belmont.	1 kw ---- 2 1/2 kw ---- 50 kw ----	L-KPO. D. U:
690, Canadian exclud-				
700, clear----	WLW	Cincinnati, Ohio----- T—Mason.	50 kw ----	U.

Station Profile

A special feature concerning a unique station

Tony Fitzherbert

358 Jackman Avenue
Fairfield, CT 06430

Country 1110 CKTY

THE Fox 99.9 FM

Serving the cities of Sarnia, Ontario, and Port Huron, Michigan, at the head of Canada's "Chemical Valley", with a delightful mix of modern country music, and up to the minute news is "Country 1110-CKTY".

From its new studio building at 1415 London Road, on the outskirts of Sarnia, CKTY, and its sister FM station, CFGX "The Fox, - 99.9FM", broadcast 24 hours daily, with live assisted programming by personalities who are welcome companions in many area homes and businesses. Sarnia, with a

population of about 60,000 people, and its United States neighbor, Port Huron, home to about 35,000 people, host thousands of tourists annually who come to enjoy the beauty and water sports available at Lake Huron. The two city area straddles the south end of this Great Lake, and its outlet, the Huron River. Additionally, the area's economy is fueled by many petrochemical refining plants bordering the Huron River. At shift change time, the traffic on Route 40 south of Sarnia rivals the congestion on many of the Eastern Seaboard's urban highways. Agriculture rounds out the business picture, as crops flourish in the well fertilized fields bathed by the summer sun. And CKTY or "The Fox" joins many of the drivers as they go to and from their jobs at the refineries or farms.

CKTY's ancestry began on 1250 kHz in 1974, as CKJD, a 1000 watt DA-2 24 hour outlet. The station formatted adult contemporary music, broadcast from cramped quarters in a downtown Sarnia office building at 546 North Christina Street. The call stood for Keith J. Dancy, the station's original owner.

In 1974, 1110 kHz became available, and the station moved to this frequency, increasing its daytime power to 10,000 watts. The format changed to Top 40 music, and a sister FM station was added. CJFI-99.9 aired easy listening "Elevator" music.

The stations, faced with competition from WPHM-1380 and WHLS-1450, in Port Huron, and rival 10,000 watt CHOK-1070 in Sarnia, lost money, and were sold in 1988 by owner Roger Lass. The new owner was the lucrative Bluewater Broadcasting Corporation, a subsidiary of McLean - Hunter, owners of many radio and television stations, as well as newspapers and other periodicals, including McLean's Magazine, Canada's national weekly news magazine. After extensive market studies by Coleman Research, Bluewater Broadcasting changed CKJD's format to modern country music (on February 26, 1988), while retaining the same on air staff, and dropped CJFI's beautiful music for a soft adult contemporary fare. The call signs were replaced by CKTY (for "Country") and CFGX (for "The Fox" - foxes have proliferated in many radio markets in North America).

Needing more space, and a more professional environment, CKTY-CFGX moved from the old Christina Street office building to a single story building designed exclusively for radio broadcasting. Both stations broadcast 24 hours daily from two large, roomy control rooms. The bright, spacious building also contains two production studios (with both 2 track and 4 track capabilities), and a large news room, where a seven person staff provides newscasts each hour. Sales and executive offices round out this showcase complex.

CKTY and The Fox air many remote broadcasts, providing a very visible presence in Sarnia and Lambton County. CKTY community involvement includes promotion and assistance for over thirty area charitable organizations, which raised over \$300,000 for these causes last year. Other CKTY community projects include the Miss Sarnia and Miss Sarnia Teen Pageants, country music concerts, and the Ontario Special Olympic Torch Run. Eight on - air personalities run CKTY's control board, providing Lambton County with local information and talk, mixed with music from Randy Travis, The Judds, Hank Williams, Jr., Johnny Cash, and many other contemporary and traditional country artists. On Saturday mornings, CKTY's Top 20 Countdown summarizes the most requested country tunes during the past week on CKTY. And on Sunday nights, the syndicated "Nashville

Live" entertains CKTY's devoted country music listeners. Locally produced news and sports air on the hour - emphasizing Sarnia and Lambton County happenings. CKTY is a refreshing oasis of locally - originated broadcasting by local people - in an era of canned presentations relayed from distant points by satellite. It is a fine example of what a local station can do for its market area.

CKTY's transmitting facility is unique, too, in that the station uses no less than twelve towers. Located east of Route 40, approximately fifteen miles south of the studio, three of the twelve towers push the daytime 10,000 watt signal northeast, covering London and St. Thomas, as well as all of Lambton County. The daytime signal is heard at sunset all over the eastern portion of Canada and New England by DX'ers. The extremely directional night pattern requires nine towers, in three rows of three each to cover Sarnia and Port Huron, and protect WBT-1110, WWWE-1100, KMOX-1120, and other U.S. stations.

CKTY is a textbook example of how a mix of well thought out local programming and a visible commitment to its listeners can enable an AM station to succeed, holding its own in an era of declining AM listening.

Thanks are extended to Mark Cartland, CKTY Program Director and midday air personality, for his help in the preparation of this CKTY profile. Mark brings over a decade of broadcasting expertise to CKTY from London and Kitchener stations. Ironically, he began his career in Sarnia, across town at the competition, CHOK.

NAB ANTENNA TEST RESULTS DISAPPOINTING IN EARLY ANALYSIS

The results of the famed NAB anti-skywave antenna tests are expected to be revealed at the Radio 90 gathering in Boston which gets underway just after deadline for this issue of DX News. However, from the initial results presented to the NAB Executive Committee several weeks ago, it appears the antenna system tested was only about 30 percent effective as reported in trade publications. According to Kelly Williams, NAB engineer, no further testing from this facility is anticipated. The NAB is now testing another antenna design described at a "low profile" antenna but this is being done by computer modeling and actual construction and testing of such a system is not scheduled. Ogden Prestholdt, designer of the anti-skywave system, is quoted in Radio World as being "puzzled" by the varying propagation measurements made during the on-the-air tests. Asked if the NAB will fund the anti-skywave project further, Williams said, "Not in the immediate future." It looks like the handful of NRCers who received their QSLs from the few days of testing conducted by the NAB have indeed added a rare prize to their collections. We expect to have a more detailed follow up in a future issue of DX News. --Jerry Starr

AM Antenna Data Is In

by John Gatski

College Park MD The NAB has completed field testing of its experimental anti-skywave antenna project and is now analyzing the results, which will be released at the NAB's Radio show next month.

The tests were conducted 20-23 June using the 290' base-fed antenna designed by consultant Ogden Prestholdt. With its tunable vertical radiator/matching circuitry, the antenna theoretically can tune out unwanted skywave in any particular direction.

NAB Science and Technology staff engineer Kelly Williams did not elaborate specifically on how well the antenna performed because the raw data had not been analyzed, but he said preliminary results indicated some "appreciable suppression" in the desired directions.

On each of the nights a 400 W test broadcast signal was beamed toward a monitoring site in Plainville, NJ, which was manned by Prestholdt, and another site in Brownsville, PA.

The tests ran into some problems including failure of the final output amplifier on the transmitter during the first night and atmospheric noise because of thunderstorm activity north of the Washington, DC area, Williams said.

The NAB had an auxiliary transmitter on hand and engineers at the College Park site were able to get the 1660 kHz test signal on the air, Williams added.

Approved in 1983, the \$100,000 anti-skywave project took longer than expected to get the tests underway due to weather-forced delays and bureaucratic snags getting local government zoning approval.

FCC Freeze

by Charles Taylor

Washington DC An approaching cutoff that would have allowed more than 1000 US AM daytimers to upgrade for increased nighttime power has been invalidated—at least for the time being—by the FCC's ongoing freeze on major changes to AM stations.

The daytime upgrade, passed in April 1985, made it permissible for designated stations to operate at night at a maximum of 500 W on former foreign clear channels. At the end of a five-year transition period, the stations could apply for a permanent upgrade to 1000 W, providing no complaints of interference developed.

The deadlines for applying for the upgrade were August 1990, September 1990, June 1991 and December 1991.

Now, however, the upgrade is on hold while the FCC ponders applications of its 12 April proposed rulemaking on technical criteria for the existing and expanded AM band.

The action, contained in MM Docket 87-267, is aimed at comprehensive reform for the ailing AM band, including measures to clarify the expanded AM band, AM stereo, simulcasting with FM stations and more.

Radio World
-via Pete Kemp

TIS Updates

Chris Cuomo

670 Third Avenue
Verona, PA 15147-1340

Additions to information about Travelers' Information Stations

Presenting the NRC's second TIS list. The first appeared back in Vol. 55 Issue 30. Once again I would like to thank Wilhelm Herbst who allowed the NRC to use information from his book, *The Traveler's Information Station/Highway Advisory Radio Guide*. This one-of-a-kind book lists addresses, powers, ranges, antenna types and heights, message transcripts, and much, much, more. The past year-and-a-half has seen many changes in TIS radio; AM stations operating as TIS'es, dozens of new TIS'es, and the proposed relocation of all 1610Khz TIS'es to 1710Khz to clear the way for the band expansion. As with the first TIS list, I plan to run two or three updates to this list with corrections sent in by DX News readers and appearing in DDXD and Musings. If you know of any corrections to this list, please send them to me so that this list can be updated.

ABBREVIATIONS

AP - Airport
PD - Police Department
NP - National Park
NM - National Monument
NRA - National Recreation Area
NWR - National Wildlife Refuge
I- - Interstate
SR- - State Route
m.p. - mile post
V.C. - Visitors Center
dot - Dept. of Transportation

IAP - International Airport
FD - Fire Department
NF - National Forest
NHS - National Historical Site
NLS - National Lakeshore
SP - State Park
US- - U.S. Highway
/ - junction
r.a. - rest area
Ctr. - center

92.5 KJJY
ALSO 1390 ON THE AM DIAL
1551 N.E. 66th Avenue, Des Moines, Iowa 50313

Forest abbreviations:

g - general information - lodging, exhibits, etc
h - historical information
p - parking information
r - road information - construction, direction, detours, traffic, etc.
s - public safety - safety, emergency, etc
w - weather - often NOAA

NOTES ON FREQUENCIES

In the United States, 530Khz and 1610Khz are reserved for TIS use. Any frequency can be used by a TIS operating under Part 15 FCC Rules as long as the station does not interfere with licensed broadcasters. Many carrier current stations operate on 1200Khz. In Canada, most TIS'es operate on the 'graveyard' channels

NOTES ON CALLSIGNS

The call signs of TIS stations can begin with a 'K' or a 'W' regardless of on which side of the Mississippi River they are located. In Canada, TIS'es operated by Parks Canada have call signs beginning with 'CBP-'. TIS'es that are not operated by the Parks Canada have the same type of four letter callsigns that are assigned to regular privately-owned radio stations in Canada. All callsigns beginning with 'KIH' and 'WXJ' through 'WXM' and followed by two digits are relays of NOAA Weatheradio stations. Stations operating under Part 15 FCC Rules (using 100 milliwatts or less power) are not assigned callsigns. The only callsigns ever heard over these carrier current stations will be that of a NOAA station if it is relayed. AM stations acting as TIS'es keep their four-letter callsigns.

Some TIS stations do not have call signs (Example: Washington, DC IAP). Others are unknown. If you know of the callsign of any station not listed on this list please send it in.

NOTES ON POWERS

In the United States, TIS'es may operate with up to 10 watts. Stations operating with 100 milliwatts or less are not licensed and come under Part 15 FCC Rules. In Canada, TIS'es can operate with up to 30 watts. CFYZ-Toronto is the only exception, operating with 50 watts.

530 KILOHERTZ

KNDL647 Tucson IAP - Tucson, AZ (1) gp 10
KNEC906 U.S. Customs Service - San Ysidro, CA (1) g 10
WNCH749 Burbank AP - Burbank, CA gp 10

KNEU564 California dot - I-80 - Truckee, CA r
California dot - SR-50 - Pollock Pines, CA r
KNCM250 California dot - SR-30/SR-330 - San Bernardino, CA r
KNEC996 California dot - I-5/SR-55 - Santa Ana, CA r
California dot - US-395 - Bishop, CA r
California dot - I-5 - Mission Viejo, CA r
California dot - Pasadena, CA r
WNAG558 Coronado PD - Coronado, CA (silent) gr 6.5
Oakland Coliseum - Oakland, CA p
KRN984 Los Angeles IAP - Los Angeles, CA rp 10
WYZ301 Los Angeles IAP - Los Angeles, CA rp 10
KPB748 Sequoia & Kings Canyon NP - Ash Mtn. HQ, Three Rivers, CA grs 10
San José IAP - San José, CA p
WNIG247 Sacramento Metro AP - Sacramento, CA p 10
WNFG219 Anaheim Police Dept. - Disneyland Info - Anaheim, CA gp
KAF711 Rocky Mtn. NP - Grand Lake Entrance, CO gr 10
KAF712 Rocky Mtn. NP - Fall River Pass V.C., CO gr 10
KNID788 Stapleton IAP - Denver, CO p 2
KNDC748 Vail, CO (silent) spr 10
KNDC749 Vail, CO (silent) spr 10
KNDC750 Vail, CO - Ford Park Tennis Shack, Vail, CO spr 10
WNT2394 Cherry Creek State Recreation Area - Aurora, CO g 10
WNGN649 Connecticut dot - I-84 - Manchester, CT r 10
Washington AP - Parking Lot 3, North Ent., Washington, DC gr 10
Lake Sidney Lanier, GA g
WRD944 Georgia dot - I-75/I-285 - Smyrna, GA gr 10
WRD945 Georgia dot - I-95/US-84 - Brunswick, GA gr 10
WRD946 Georgia dot - I-95/SR-89 - Brunswick, GA gr 10
WRD947 Georgia dot - I-20/I-285 - Decatur, GA gr 10
WRD948 Georgia dot - I-75/I-285 - Forest Park, GA gr 10
WYG263 Georgia dot - I-20/SR-70 - Cobb County, GA gr 10
KWO39 NOAA - Chicago, IL rW
Illinois-Michigan Canal - Joliet, IL
Illinois-Michigan Canal - Lemont, IL
Illinois-Michigan Canal - Morris, IL
Illinois-Michigan Canal - La Salle, IL
Rend Lake Dam - Rend Lake, IL
Indiana Dunes NLS - West Reach Unit, Michigan City, IN
KCT787 KOG212 Wyne-Hoosier NF - Bedford, IN gs 10
WMTN473 Frankfort, KY - State Capitol Tourist info gh
KNJX865 Maryland dot - Statewide temporary (2) r 10
WSQ579 Maryland dot - College Park
KNJX865 Maryland dot - I-70/US-40,48 - Hancock, MD r 10
KNJX865 Maryland dot - US-50 - Graysonville, MD r 10
KNJX865 Maryland dot - US-13 bus./US-50 - Salisbury, MD r 10
KNJX865 Maryland dot - US-13/US-50 - Crestwood, MD r 10
WXM42 NOAA - Sugar Loaf Mountain, MD w 1
Massachusetts Dept. of Environment - Horseneck Beach, MA grw 10
Holland Chamber of Commerce - US-31/I-196 - Holland, MI ghr 10
WNAV542 Iron Trail - Anchor Lake Info Ctr., Eveleth, MN g 10
Iron Range Resources Mineland Reclamation - Eveleth, MN h 10
IRRM - Chisholm, MN h 10
IRRM - Calumet, MN h 10
IRRM - Virginia, MN h 10
IRRM - Grand Rapids, MN h 10
IRRM & other local groups - Chisholm, MN h 0.02
IRRM & other local groups - Calumet, MN h 0.01
IRRM & other local groups - Virginia, MN h 0.01
IRRM & other local groups - Hibbing, MN h 0.01
IRRM & other local groups - Nashwauk, MN h 0.01
IRRM & other local groups - Grand Rapids, MN h 0.01
KNHW885 Minneapolis-St. Paul IAP - St. Paul, MN p
WQH816 Minnesota dot - I-35W - Minneapolis, MN r 10
Mark Twain SP, MN gpw
KNIE436 Roxbury, NJ (3)
"Radio Road" - Atlantic City Expwy., NJ g
WNDF923 Newark IAP - Newark, NJ p 10
WNMH725 Elmira, NY gp
KNAA585 J.F. Kennedy IAP - New York, NY gp 10
WSB887 New York Port Authority, NY 10
KID771 Great Smokey Mts. NP - Deep Creek Campground, NC grs 10
Findlay AP - Findlay, OH g
KQP833 Columbus, OH
Dayton, OH - local events including annual Hamvention gp
Norwalk Raceway Park - Norwalk, OH (4) g 0.1
I-70 r.a. - London, OH gr
NOAA - I-80 OH/PA border - Hubbard, OH w 1
WYZ271 Gatlinburg Information R. - Gatlinburg, TN g 10

KFAL, INC.
KFAL-AM - KKCA-FM
1805 Westminster
Fulton, Missouri 65251

WY2273 Gatlinburg Information R. - Pigeon Forge, TN g 10
 WY2274 Gatlinburg Information R. - I-40/SR-88 - Kodak, TN g 10
 Tennessee dot - Knoxville, TN r 10
 KNFJ244 Texas dot - Beaumont, TX r 10
 KNFV940 Dallas-Ft. Worth IAP - Dallas, TX pr 10
 Norfolk IAP - Norfolk, VA p
 KNAV735 Virginia dot - I-95/SR-234 - Dumfries, VA r 10
 WNH483 Virginia dot - I-86 Welcome Ctr., Prince William, VA r 10
 KNAV736 Virginia dot - I-95/US-1 - Fredericksburg, VA r 10
 KNJR837 Virginia dot - I-84/SR-173 - Newport News, VA r 10
 KNJR838 Virginia dot - SR-188/SR-188 bypass - Chesapeake, VA r 10
 KNJR839 Virginia dot - I-64/US-258 - Hampton, VA r 10
 KNJR840 Virginia dot - I-84/Providence Rd. - Virginia Beach, VA r 10
 KNJR841 Virginia dot - I-64/SR-44 - Virginia Beach, VA r 10
 WNA882 Virginia dot - Naval Base Rd. - Norfolk, VA r 10
 WQC883 Virginia dot - I-95/SR-44 - Ashland, VA r 10
 WQC884 Virginia dot - I-95/SR-207 - Carmel Church, VA r 10
 WQC885 Virginia dot - I-95/SR-30 - Kings Dominion, VA r 10
 KOQ206 Gifford Pinchot NF - South Ent. - Yale, WA grs 10
 KOD88 Gifford Pinchot NF - North Ent. - Randle, WA grs 10
 WNA648 Tacoma Dome - I-5 - Fife, WA gp 10
 WNH788 Washington dot - I-520 - Bellevue, WA r 10
 KNEZ392 Washington dot - I-405/SR-520 - Bellevue, WA r 10
 KNEZ393 Washington dot - I-90/NE 150th St. - Bellevue, WA r 10
 KTT822 Sea-Tac IAP - Seattle, WA p 10
 KNEZ390 Washington dot - I-5/NE 45th St. - Seattle, WA r 10
 KNEZ391 Washington dot - I-5/Spokane St. - Seattle, WA r 10
 Wisconsin dot - I-94 - Poynette, WI rg 10
 Wisconsin dot - US-53 - Superior, WI rg 10
 Wisconsin dot - US-18 - Prairie du Chien, WI rg 10
 Wisconsin dot - US-41 - Marinette, WI rg 10
 Wisconsin dot - I-90 - LaCrosse, WI rg 10
 Wisconsin dot - US-151 - Kieler, WI rg 10
 Wisconsin dot - US-2 - Hurley, WI rg 10
 Wisconsin dot - I-84 - Hudson, WI rg 10
 Wisconsin dot - US-12 - Genoa City, WI rg 10
 Wisconsin dot - I-90 - Beloit, WI rg 10
 Circus World - Wisconsin Dells, WI g 10
 CFYZ Lester B. Pearson IAP - Toronto, ON (5) gp 50
 CIRS Ontario Travel Info Ctr.-Can./US bdr-Sault Ste. Marie, ON gw
 CFHS Ontario Travel Info Ctr.-Canada/US bdr - Ft. Frances, ON gw

810 KILOHERTZ

Disney World - Epcot Ctr Drive Ent. - Lake Buena Vista, FL gp 0.1

800 KILOHERTZ

Disney World - Epcot Ctr Drive Exit - Lake Buena Vista, FL gp 0.1

1020 KILOHERTZ

W18G Ocean City, NJ (6) g 500

1030 KILOHERTZ

Disney World - North/South Rd. Ent. - Lake Buena Vista, FL gp 0.1

1130 KILOHERTZ

WHHR Hilton Head Island, SC (6) g

1150 KILOHERTZ

CFOT Ontario Travel Info Ctr. - Canada/US border - Sarnia, ON gw 11

1170 KILOHERTZ

WHWY St. Augustine Beach, FL (6) gpr 640

1200 KILOHERTZ

Disney World - North/South Rd. Exit - Lake Buena Vista, FL gp 0.1

WXJ75 NOAA - M.P. 102 - Springfield, IL w 0.1
 WXJ75 NOAA - M.P. 103 - Springfield, IL w 0.1
 WXJ71 NOAA - M.P. 148 r.a. - Bloomington, IL w 0.1
 WXL51 NOAA - I-75/US-6 - Bowling Green, OH w 0.1
 Hershey Park - Hershey, PA gp 0.1
 Busch Gardens Theme Park - Grove, VA p 0.1
 RV Campground - Marina, CA gp 0.1
 KEC78 NOAA Weather - Provo, UT w 0.1

1230 KILOHERTZ

CBPG1 Banff NP - East Gate Ent., AB (French) g 30
 CBPG Banff NP - Townsite, AB (French) g 30
 Banff NP - Castle Junction, AB (French) g 30



Banff NP - Saskatchewan Crossing, AB (French) g 30
 Jasper NP - Columbia Icefield, AB (English) g 30
 Jasper NP - Athabasca Falls, AB (English) g 30
 Jasper NP - Maligne Canyon, AB (English) g 30
 CBPF Rocky Mtn. House NP, AB g 5
 CBPD1 Mt. Revelstoke/Glacier NP - West Ent., BC (French)(silent) g 5
 CB.. Yoho NP, BC (French)(silent) g 20

1240 KILOHERTZ

CBPJ Waterton Lakes NP - Cameron Lake, AB g 30

1260 KILOHERTZ

CBPJ1 Waterton Lakes NP - Cameron Lake, AB g 30
 CBPZ Environment Canada - Sidney, BC (7) w

1280 KILOHERTZ

Cape Turner NP, PI g 30

1300 KILOHERTZ

WXX42 NOAA - Buffalo River SP, MN w 0.1

1370 KILOHERTZ

Tyson's Corner Shopping Ctr. - McLean, VA gp 0.1

1490 KILOHERTZ

CBPH Banff NP - East Gate Ent., AB (English) g 30
 CBPH2 Banff NP - Townsite, AB (English) g 30
 CBPH1 Banff NP - Castle Junction, AB (English) g 30
 Banff NP - Saskatchewan Crossing, AB (English) g 30
 Jasper NP - Columbia Icefield, AB (French) g 30
 Jasper NP - Athabasca Falls, AB (French) g 30
 Jasper NP - Maligne Canyon, AB (French) g 30
 CBPI Waterton Lakes NP - Blakiston Falls, AB g 30
 CBPL British Columbia dot - Allison Pass, BC r 30
 CBPM British Columbia dot - Chetwynd, BC r 30
 CBPN British Columbia dot - Horseshoe Bay, BC (silent) r 30
 CBPO British Columbia dot - Squamish, BC r 30
 CBPC1 Mt. Revelstoke/Glacier NP-West Entrance, BC(English)(silent) g 5
 CB.. Yoho NP, BC (English) (silent) g 20
 Cape Turner NP, PI g 30

1500 KILOHERTZ

Sea World - San Diego, CA (silent) p 0.1
 KIH63 NOAA Weather - SR-528 r.a. - Morningside Park, FL w 0.1

1510 KILOHERTZ

WV10 Blowing Rock, NC (6) gr 1000

1530 KILOHERTZ

Strasburg Railroad - Strasburg, PA p

1540 KILOHERTZ

CBP. Elk Island NP, AB (English) g 20

1560 KILOHERTZ

WXM49 Iowa dot - R.A. #13 - eastbound I-80 - Bettendorf, IA w 0.1
 WXM49 Iowa dot - R.A. #14 - westbound I-80 - Bettendorf, IA w 0.1
 WXL82 Iowa dot - R.A. #18 - northbound I-29 - Sergeant Bluff, IA w 0.1
 WXL57 Iowa dot - R.A. #18 - northbound I-35 - Ankeny, IA w 0.1
 WXL57 Iowa dot - R.A. #21 - eastbound I-80 - Booneville, IA w 0.1
 KIH61 Iowa dot - R.A. #29 - westbound I-80 - Underwood, IA w 0.1
 KIH61 Iowa dot - R.A. #30 - eastbound I-80 - Underwood, IA w 0.1
 WXL57 Iowa dot - R.A. #34 - northbound I-35 - Lamoni, IA w 0.1
 KIH61 Iowa dot - R.A. #35 - southbound I-29 - Glenwood, IA w 0.1
 KIH61 Iowa dot - R.A. #36 - northbound I-29 - Glenwood, IA w 0.1
 WXL94 Iowa dot - R.A. #38 - northbound I-35 - Clear Lake, IA w 0.1

1570 KILOHERTZ

WXL62 Iowa dot - R.A. #15 - southbound I-29 - Sergeant Bluff, IA w 0.1
 WXL57 Iowa dot - R.A. #17 - southbound I-35 - Ankeny, IA w 0.1
 WXL57 Iowa dot - R.A. #22 - westbound I-80 - Booneville, IA w 0.1
 WXL84 Iowa dot - R.A. #37 - southbound I-35 - Clear Lake, IA w 0.1

1600 KILOHERTZ

Pt. Angeles, WA g 0.1

1610 KILOHERTZ

KOE700 Denali NP - Riley Creek Info Ctr, Denali, AK gr 10
 Chugach SP, AK g 10

Wag Country

KGD48	Conconino NF - Eldon, AZ	gs	10
KOP737	Grand Canyon NP - South Rim Albright Ctr, AZ	gh	10
KOP738	Grand Canyon NP - Desert View East Entrance, AZ	gh	10
KGD50	Kaibab NF - Jacob Lake, AZ	s	10
WXX790	Sky Harbor IAP - Phoenix, AZ	sp	8
KMC480	Wapacoc NWR - Turrell, AR	g	3
WNFG219	Barstow Desert Museum - Barstow, CA	g	10
KGB528	Harbor PD - Anaheim, CA		
KGD44	Cleveland NF - Laguna, CA	gs	10
KNIP553	Cleveland NF - Palmaroad Mountain, CA	gs	10
WNHN752	Foothill College - Los Altos, CA	p	10
	Monterrey, CA	g	10
	Newark PD - Newark, CA	r	10
WNPF505	Balboa Park - San Diego, CA		
KPB749	Point Reyes Nat'l Seashore - Point Reyes, CA	grs	10
KPB795	Redwood NP - Prairie Creek V.C., Elk Prairie, CA	g	10
KPB794	Redwood NP - Crescent City, CA	g	10
KPB796	Redwood NP - Orick, CA	g	10
KHA523	Sequoia NF - Kerrville, CA	gs	10
KHA524	Sequoia NF - Democrat, CA	gs	10
KMP824	Sierra NF - Mountain Rest	grs	6
	Nevada dot - US-50/SR-89 - Tahoe Valley, CA (B)	r	10
	Nevada dot - Tahoe Valley, CA (B)	r	10
KAF721	Black Canyon of the Gunnison NM - East Portal, CO	gs	10
KNHB...	Winter Park, CO	g	
KAF720	Curecanti NRA - Elk Creek, CO	g	10
KAF727	Mesa Verde NP, CO	grs	10
KAF713	Rocky Mtn. NP - Beaver Meadows HQ, CO	gr	10
KIE780	Everglades NP - Pine Island V.C., FL	g	9
	Ft. Lauderdale-Hollywood IAP - Ft. Lauderdale, FL	p	0.1
	J.F. Kennedy Space Ctr - Cape Canaveral, FL		10
WY2235	Tampa IAP - Tampa, FL	p	9.5
KWA712	Hawaii Volcanoes NP - Kilauea, HI	s	10
KSB834	Boise NF - Idaho City Ranger Station - Idaho City, ID	grs	5
KNAV733	Raft River, ID	gs	
KNAV734	Register Rock SP, ID		
	Dworshak Dam - Ahsahka, ID	gh	
KMB395	Brookfield Zoo - Brookfield, IL	sp	10
KMH441	Illinois dot - US-41/SR-22 - Chicago, IL	rw	10
KMB824	Illinois dot - I-90/I-94 - Chicago, IL	rw	10
KNAP828	Illinois dot - The Loop - Chicago, IL	rw	10
KNIG425	Illinois dot - I-290 - Hillside, IL	rw	10
KNIG426	Illinois dot - I-290 - Itasca, IL	rw	10
KNIJ419	Brown County SP, IN	gs	10
KI2XCM	Experimental HAR - Algona, IA	r	10
KSAY1610	Saylorville Lake Reservoir - Johnston, IA	grs	10
WXT613	Greater Cincinnati AP - Boone County, KY	sp	2
KFB759	Acadia NP - Trenton, ME	g	10
KFB780	Acadia NP - Hull's Cove V.C., ME	g	10
	Maryland Natural Resources PD Marine Div - Annapolis, MD		10
KNJX865	Maryland dot - Statewide Temporary (2)		
KEC90	NOAA - Detroit, MI	w	
WNLH734	Michigan dot - I-75 - Luna Pier, MI	r	10
WZM832	Minnesota dot - I-35W/I-494 - Richfield, MN	r	10
	Noxubee NWR, MS		
KAC775	Ozark Nat'l Scenic Riverways - Salem, MO	grs	10
KAC776	Ozark Nat'l Scenic Riverways - Country Store, MO	grs	10
KAC778	Ozark Nat'l Scenic Riverways - Van Buren, MO	grs	10
KAC779	Ozark Nat'l Scenic Riverways - Buck Hollow, MO	grs	10
KNEM483	Branson, MO		
KNFA366	Independence, MO		
KOP796	Grant-Kohrs Ranch NHS - Deer Lodge, MT	gh	10
KID776	Custer Battlefield NM, MT	grs	10
KAC200	Gallatin NF - Bozeman, MT	g	10
	Gallatin NF - Beaver Creek, MT	g	10
KHA517	Gallatin NF - Targhee Pass, MT	g	10
KHA518	Gallatin NF - Livingston, MT	g	10
KQC33	Gallatin NF - Boulder River, MT	g	10
KII596	Gallatin NF - Cooke City, MT	g	10
KII605	Gallatin NF - Gardiner, MT	g	10
KIN222	Gallatin NF - Gallatin Canyon, MT	g	10
KMG845	Gallatin NF - Hylt Canyon, MT	g	10
KHA515	Gallatin NF - TMN Campground, MT	g	10
KHA526	Gallatin NF - Emigrant, MT	g	10
KHA527	Gallatin NF - Yellowstone River Valley, MT	g	10
KOE731	Glacier NP - West Glacier, MT	grs	10
KOE732	Glacier NP - St. Mary's Ent. Station, MT	grs	10

WAUD
AUBURN 1230

P O Box 391
Auburn, Alabama 36830

	Glacier NP - Logan Pass, MT	grs	10
	Glacier NP - Goat Lick, MT	grs	10
	Glacier NP - Elk Winter Range, MT	grs	10
	Glacier NP - Visitors Center, MT	grs	10
	Montana dot - I-15 - Butte, MT	r	10
	Montana dot - I-15 northbound r.a. - Jefferson City, MT	r	10
	Nat'l Bison Range - Visitor's Ctr - Moiese, MT	gr	10
KOP709	Yellowstone NP - Northeast Entrance, MT	grs	10
KOP710	Yellowstone NP - West Entrance, MT	grs	10
KOP708	Yellowstone NP - North Entrance, MT	grs	5
	NARBA convention - Las Vegas, NV		
	Nevada dot - Reno, NV	r	10
KHA525	White Mts. NF - Conway, NH	grs	10
WNCF...	New Hampshire dot - US-3 - Franconia Notch, NH	r	10
WNCF...	New Hampshire dot - US-3 - Littleton, NH	r	10
KOP741	Carlsbad Caverns NP - White's City, NM	g	10
KCK538	Twining Water & Sanitation District - Taos, NM		10
KOP743	White Sands NM - Visitors Ctr, NM	ghrs	10
KID707	Cape Hatteras Nat'l Seashore - Manteo, NC	g	10
WGW849	Raleigh-Durham AP - Morrisville, NC	p	10
	N.C. State Univ. - Raleigh, NC	p	10
	Great Smokey Mts. NP - Newfound Gap, NC	grs	0.1
KIE718	Great Smokey Mts. NP - Oconaluftee V.C., NC	grs	10
KIE730	Great Smokey Mts. NP - Clingmans Dome, NC	grs	10
KNB723	Hopkins IAP - Cleveland, OH	p	10
	Toledo Zoo - Toledo, OH	g	10
	Toledo, OH - upcoming events	g	10
WQB903	Union County AP - Marysville, OH	sp	10
KNCK692	Tulsa, OK		
WSQ964	Crater Lake NP - Crater Lake, OR	grs	10
KNAX787	Port of the Dalles, OR	g	10
KOQ226	Siunslaw NF - Glenada, OR	grs	10
KOQ227	Siunslaw NF - North Bend, OR	grs	10
KOQ228	Siunslaw NF - Reedsport, OR	grs	10
KOQ229	Siunslaw NF - Winchester, OR	grs	10
RSQ225	Allegheny NF - Kinzua Pt. V.C., PA	gs	10
KPC731	Ft. Necessity Nat'l Battlefield - Farmington, PA	grs	10
	Friendship Hill NHS, PA	gh	10
	Allegheny Portage R.R. NHS - Cresson, PA	sp	10
	Strasburg Railroad - Strasburg, PA	gh	10
KID774	Gettysburg Nat'l Military Park - V.C. - Gettysburg, PA	gh	10
	Valley Forge SP - Valley Forge, PA	h	10
	Mt. Rushmore NM/Custer SP - Keystone, SD	g	10
KIE722	Great Smokey Mts. NP - Cades Cove, TN	grs	10
KIE723	Great Smokey Mts. NP - Sugarlands V.C., TN	grs	10
KIE724	Great Smokey Mts. NP - Townsend Ent., TN	grs	10
KIE731	Great Smokey Mts. NP - Elkmont Campground, TN	grs	10
KIE732	Great Smokey Mts. NP - Cosby, TN	grs	10
KIE793	Great Smokey Mts. NP - Twin Creeks, TN	grs	5
KPB747	Great Smokey Mts. NP - Greenbrier, TN	grs	10
	Great Smokey Mts. NP - Cataloochie, TN	grs	0.1
	Great Smokey Mts. NP - Smokemont Campground, TN	grs	0.1
WDX581	Memphis IAP - Memphis, TN	p	10
WY2275	Gatlinburg Information R. - I-40/SR-66 - Kodak, TN	g	10
KON247	Houston IAP - Houston, TX	p	
KNDX478	San Antonio IAP - San Antonio, TX	p	9.3
	Guadalupe Mts. NP, TX	g	
	Big Bend NP - Persimmon Gap V.C., TX	g	
WYJ27	Lower Colorado River Authority, TX	w	
WY2238	William P. Hobby AP - Houston, TX	p	10
KOP798	Bryce Canyon NP - Ent. Station, UT	gs	10
KOJ738	Capitol Reef NP - SR-24 V.C. - Torrey, UT	g	10
KOJ761	Zion NP - Watchman Campground, UT	grs	10
KID702	Appomattox Court House NHS - Appomattox, VA	h	10
KKG654	Virginia dot - I-85/County Rte. 637 - Quantico, VA	r	10
KID782	Fredericksburg, VA	h	10
	Chincoteague NWR - Chincoteague, VA	grs	10
KIE736	Shenandoah NP - Luray, VA	grs	10
KPC747	Jamestown, VA	h	10
	Chief Joseph Dam - Bridgeport, WA	gh	10
	Yakima, WA		
KNH2983	US Customs Service - Bellingham, WA	g	10
WDF946	Wenatchee NF - Naches, WA	g	10
KNHA519	Mt. Ranier NP - Tahoma Woods, WA	grs	10
KOD782	Mt. Ranier NP - Longsire, WA	grs	10
KOD787	Mt. Ranier NP - Nisqually Ent. Station, WA	grs	10
KOD768	Olympic NP - Port Angeles, WA	gr	10
KOP773	Olympic NP - Lake Crescent, WA	gr	10
KOD771			

Chee

KNFG751	Mt. St. Helens Dept of Emergency-SR-504/SR-505-Toutle, WA	s	10
WNAN648	Tacoma Dome - I-5/S. 58th St., Tacoma, WA	gp	10
WXXF989	Washington dot - I-90 - Cle Elum, WA	rw	10
KNEF887	Washington dot - I-90 - Ellensburg, WA	rw	10
WQX208	Washington dot - I-90 - Snoqualmie Pass, WA	rw	10
WXXF988	Washington dot - I-90 - North Bend, WA	rw	10
KNHD261	Washington dot - 15th Ave./Cherry St. - Olympia, WA	rs	10
KNHD261	Washington dot - I-5/SR-510 - Lacey, WA	rs	10
KNHD261	Washington dot - I-95/93rd Ave. SW - Tumwater, WA	rs	10
KNHD261	Washington dot - US-101/Evergreen Pkwy. - Olympia, WA	rs	10
KNHD262	Washington dot - US-101/W. Uncas Rd. - Uncas, WA	rs	10
	Harpers Ferry Nat'l Historical Park - Harpers Ferry, WV	gh	8
	Apostle Islands NLS - Basswood, WI		10
	Apostle Islands NLS - Stockton, WI		10
	Apostle Islands NLS - Devils Islands, WI		10
KAC629	Horicon NWR - Dodge City, WI	g	10
	Wisconsin dot - I-94 - Kenosha, WI	gr	10
	Gen. Mitchell IAP - Milwaukee, WI	p	10
WNKP332	Milwaukee Co. Stadium Authority, Milwaukee, WI	gpr	10
KHA520	Nicolet NF - Lakewood, WI	gs	10
KOP735	Devils Tower NM, WY	ghs	10
KOC745	Ft. Laramie NHS, WY	grs	10
WXM37	NOAA - Cheyenne, WY	w	10
KOP711	Yellowstone NP - South Entrance, WY	grs	10
KOP707	Yellowstone NP - East Entrance, WY	grs	10
	I-90 - Sheridan, WY	gr	10
	Roosevelt-Campobello Int'l Park, NB	g	10

1620 KILOHERTZ

Orlando, FL (9)

FREQUENCY UNKNOWN

	"Tunnel Radio" Dewey Sq Tunnel - Boston, MA		
	North Carolina dot - I-26 Welcome Ctr, Polk Co., NC	w	0.1
WXL56	NC dot - I-40 Welcome Ctr., Haywood County, NC	w	0.1
WXL42	NC dot - I-77 Welcome Ctr., Surry County, NC	w	0.1
WXL40	NC dot - I-85 Welcome Ctr., Cleveland County, NC	w	0.1
WYR507	Virginia dot - I-95 - Richmond, VA	r	10
WYR508	Virginia dot - I-95/Belvedere St. - Richmond, VA	r	10
WYR509	Virginia dot - Downtown Expwy. - Richmond, VA	r	10
WYR510	Virginia dot - I-64/US-380 - Richmond, VA	r	10
CBPII	Waterton Lakes NP - Blakiston Falls, AB		30

NOTES ON ABOVE STATIONS

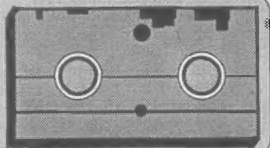
- (1) Station broadcasts in both English and Spanish
- (2) Maryland dot has received FCC approval to set up temporary TIS'es anywhere in the state on either 530KHz or 1610KHz under the call sign KNJX865
- (3) Where in the heck is Roxbury, NJ anyway?
- (4) Station relays CKMR-FM-Windsor, ON when not broadcasting traveler's information
- (5) French equivalent of message is available in a recorded telephone message
- (6) AM station operating as a TIS
- (7) Station relays Environment Canada (Canadian equivalent of NOAA) station, CFAZ40-Vancouver.
- (8) These stations are, oddly enough, in California. No typos here.
- (9) I saw signs for this station near Church Street Station, Orlando's former main railroad station now converted in a group of gift shops and theaters. I was unable to listen to it because the rented minivan's radio only tuned to 1610. Perhaps it gives C.S.S. info?

The Answer Man

Got a question about radio? Send it to NRC's Answer Man: Russ Edmunds - 753 Valley Rd. - Blue Bell, PA 19422-2052. No question is a dumb question, and Russ will answer all, from basic to highly technical. Watch for the answer in *DX News*!

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The Answer Man

R. J. Edmunds

753 Valley Road

Blue Bell, PA 19422-2052

"No Question Is A Dumb Question"

Answers to members' questions, from the basic to the technical

Hello, again! I guess that this begins the third season for this column, and if the support continues to be as good as it has been, we'll cover lots of ground again this year. I have received answers to the various AM Stereo questions which I received last Spring, and will devote an entire column to them shortly. Since I'll be copying and paraphrasing the answers instead of "thinking them up", it will take longer than usual to prepare that column.

In the meantime, it seems appropriate to go over the very few rules which apply to this column:

- 1) The question must be on subject matter which is normally acceptable in *DX NEWS*, i. e. DX-related
- 2) The question/answer should not be so technical that a majority of readers would be "lost".
- 3) Questions which ask me to compare aspects of various pieces of equipment will not be answered, as they are too subjective, and because I do not have access to all equipment to personally test. This also covers requests to recommend equipment.

That's really it, so get your questions in to me for subsequent issues!

First off, we have an answer to a prior question. The question involved the antenna jack on the ICF-2001 contained in V57 #29.

ANSWER: The ICF-2001 is designed to work that way, per Steve Whitt's piece entitled "Get the Best from your Sony ICF-2001D (2010)". Pulling the antenna partly out bypasses the input filter which causes the loss. A copy of the article may be obtained from the author at 21 Cauldwell Ave., Ipswich, IP4 4EB, ENGLAND. Another source of information on this receiver is contained in an article in the 1991 edition of *Fine Tuning's* "Proceedings", due out later this winter.

QUESTION: I have a problem with the batteries on my ICF-2001. The batteries are loose in the compartment and the set keeps cutting off and ultimately going back to 150 kHz. I have tried cardboard under the cover, and now have rubber bands going around the set to keep it in place, but to no avail.

ANSWER: Possibly, the answer to this problem may be contained in one of the above publications. I would suggest the use of some thin foam rubber to hold the batteries in place. I don't know what type of batteries it uses, nor how many, but another option might be to try expanding the battery terminals for a tighter fit, either mechanically or by applying a drop of solder. If anyone else has had this problem, please let us know!

QUESTION: I am looking for spare parts for the Collins 51J and 51S series receivers. Collins no longer supplies any parts, and they recommend a division of General Electric in Cleveland, OH, but they have not answered my letters. Ideas?

ANSWER: One source of information might be the "Hollow State Newsletter" which deals with tube-type receivers. You might also try some of the parts suppliers listed in one of the columns which appeared over the summer. Another possibility might be Fair Radio Sales in Lima, OH. As usual, anyone with additional information, please write.

QUESTION: Are there any rules for what constitutes a logging? Must I have call, frequency and location, or any two of these, or what?

ANSWER: My usual answer to this sort of question is that this is really an individual hobby, and that you can do whatever you please. That's not quite true, however. While there are no rules, there are some generally-

accepted standards. The idea of hearing two of the three is based upon the possibility of mishearing one or the other. In reality, however, DX'ers can and do mishear both. I've never been too fond of caring about hearing the frequency, since, in most cases, you should know what frequency you're on, and, secondly, most foreign stations don't announce it. Personally, I count a station as heard once I am certain that that's what I have heard. Frequently, that involves the call and some other piece of information, whether it's an announced location, or some other verifiable information. My series on UNIDs in *DX NEWS* last year touches on these issues in a little more detail.

QUESTION: Can you explain the differences between a Q-Multiplier and a Crystal Filter, and how and when each is used?

ANSWER: A Crystal Filter is primarily used to notch out some offending noise or signal by means of narrowing the receiver passband. It is usually a switchable device, so there is no continuous tuning. A Q-Multiplier does the same basic thing, only more so. It has an amplifier to enhance the desired signal (in "peak" mode) and it also features continuous tuning. The crystal filter oscillates a crystal to produce a beat frequency to remove the offending signal; a Q-Multiplier accomplishes this electronically. The Crystal Filter is not generally as useful for fine tuning. An analogy comparing a switchable audio filter and a tunable one would also be apt. I use mine more to remove noises, and I use the Q-Multiplier to reduce adjacent signals. In addition, if you use a high-Q loop antenna, your use of the Q-Multiplier will be less, as the antenna is more efficient at this, being ahead of the receiver. The same would be true of a preselector. Of course, remember that any active component (Q-Multiplier, loop amplifier, or preselector) can go into oscillation if tuned too tightly, and cause you to have to start over. You might wish to consult Reprints R2 and R3, which, while mostly covering mechanical filters, will provide some useful insights.

QUESTION: What effect, if any, does the ground conductivity in the region between a transmitter and a receiver have on the sky-wave signal strength at the receiver?

ANSWER: Ground conductivity is the significant factor in groundwave propagation, however, its effects on skywave propagation are limited to the conductivity at either the transmitter site, the receiver site, or both. The effect at the receiver is also highly dependent upon the antenna system employed. I know of no relationship between ground conductivity between the two and the sky-wave component of the signal.

QUESTION: I'd like to know more about the phased array using an indoor vertical and a ferrite loop mentioned in a prior column.

ANSWER: The type of antenna is a sense antenna, and the most common BCB DX utilization has been with an air-core loop, although a ferrite loop should work similarly. I would recommend NRC Reprints A5, A8, A13, A20, and A36 on the topic of these types of systems used to produce cardioid receiving antenna patterns, as the highly technical nature of the subject matter, as I indicated in the referenced prior discussion doesn't lend itself to this column. Briefly, the idea is that the utilization of this type of array allows for a nearly unidirectional pattern as opposed to the typically bidirectional pattern of a loop. This is especially useful when there is unwanted QRM or QRN 180 degrees from the DX station. The effect is diminished somewhat, or at least much more difficult to obtain and hold in relation to the strength and proximity of the unwanted noise or signal source.

Well, that's enough for this first go-around this season. Depending upon the timing of additional subject matter, we'll either do another round of mixed questions next, or we'll do the AM Stereo stuff next time...

73, *ME*

The Answer Man

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(continued from page one)

KLER-1300, P.O. BOX 32, Orofino, ID 83544 will conduct a special DX Test on Saturday morning December 1, 1990 beginning at 0650 EST. Details of programming to follow. Our thanks to Mr. Jeff Jones Station Manager. Arranged by Colorado CPC Machine for the National Radio Club.

KOJM-610, P.O. BOX 7000, Havre, MT 59501 will present a special DX test Monday Morning December 3, 1990 between 0200 and 0230 EST. This test will contain Morse Code ID's and other programming. Our thanks to Rob Yaw Chief Engineer for conducting this test. Arranged by the Colorado CPC Machine for the National Radio Club.

KUMA-1290, P.O. BOX 340, Pendleton OR 97801 will conduct a special DX Test on Sunday morning December 10, 1990 beginning at 0305 EST. This test will consist of a Special Public Service announcement for the National Radio Club. There will be Morse Code ID's contained with in the announcement. This will air two or more times between 0305 and 0330. KUMA will be broadcasting NBC TalkNet at this time. Our thanks to Mr. Greg A. Smith General Manager. Arranged by Colorado CPC Machine for the National Radio Club.

KTL-1590, P.O. BOX 40, Tillamook, OR 97141 will conduct a special DX TEST on Sunday Morning December 16, 1990 from 0300 to 0330 EST. Test will consist of Music and ID's. Our thanks to Van Moe President for this test. Arranged by the Colorado CPC Machine.

From the editor ... A few odds and ends of interesting things ... Rick Dau's GTG has been nailed down into Saturday, November 3, starting at 2 pm CST at the Best Western Canterbury Inn, Coralville, IA (near Iowa City). Open to all DX'ers, the GTG will feature snacks and refreshments provided by Rick and radios, tapes, QSL's, logbooks, and other goodies brought in by attendees.

Rick also is going to try to set up a beverage antenna. If you plan to fly in, Rick suggests either Quad Cities or Cedar Rapids and then a charter plane to Iowa City.

Another interesting convention is the "Vintage Radio and Phonograph Society/Antique Wireless Association Convention '90" (hereafter abbreviated), October 19-21 in Duncanville (Dallas), TX. Featured activities include an auction and 19 old equipment contest categories, including the Ugly Radio Contest ("Sloppy restoration or refinishing will not be a qualification for this category.") No phone number for VRPS is available, but you could reserve a room at the Dallas Southwest Holiday Inn by calling (214) 298-8911 and then show up for registration between 1-7:30 pm Friday.

Old Timers Bulletin (from AWA) notes that Antique Electronic Supply has moved to 6221 S. Maple Ave. - Tempe, AZ 85283, phone (602) 820-5411; fax ((602) 820-4643. The OTB also reviewed Ed Romney's *Fixing Up Nice Old Radios*, available for \$19 + \$1.50 shipping from Romney Publishing - Box 96 - Emlenton, PA 16373. Romney's camera repair manuals are excellent, and I would hope for the same from this book.

The Worldwide DX Club sent me a copy of their double summer issue of *DX Magazine*. The club covers all bands; membership is DM 21.00 or 18 IRC's for 12 issues. Contact WWDXC Headquarters - Postfach 1214 - D-6380 - Bad Homburg 1, Germany. The magazine is 90% or so English and is quite well done.

And that's about all the damage that I can do for this issue. I think I said it all in #1; remember, if you're editing a column or planning to contribute an article, please check the guidelines for submission in the last issue to avoid extra work for us both. 73.

JS.



Pittsburgh '90

Genuine souvenirs

of the '90 convention: a yellow 1x2.5 foot pennant plus a plastic white print on black folder, with a pad of ruled 8.5 x 11 inch paper: US \$10; \$11 to Canada; others: write. Order from NRC Publications. Hurry - get yours before they're gone!